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ASPARAGUS

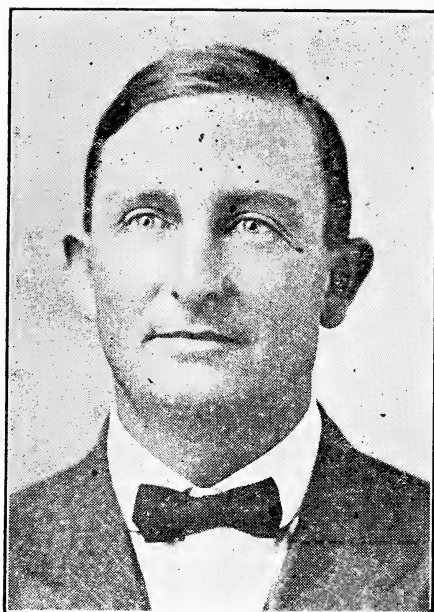
ITS CARE AND CULTIVATION

T. R. PENDER, WILLISTON, S. C.



PRICE LIST OF
Dependable Crowns (Roots) and Seed
"MARY WASHINGTON" RUST RESISTANT
THE IDEAL ASPARAGUS

G. H. Shoemaker
Vegetable Seed Trials



J. A. Fisher

INTRODUCTION.

At the age of eight years I began working in asparagus. I am now 34 years old. I have worked in it continuously since that time with the exception of one year. During these years I have learned some things about this valuable crop. However, I realize there is much more to learn. On this and the following pages I will give fully, yet briefly, the information that I have learned thru these years. Will also give answers to the numerous questions that I have been asked about this crop. What I have learned about this crop has come from reading, observation, and actual experience. The instructions and methods of planting and harvesting given herein have been tried and have proved successful. However, it must be remembered that in different sections soil and climatic conditions make it necessary to handle crops like asparagus differently. I have tried to put in book form such information as I believe will be helpful to the asparagus growers. By doing this I feel that much time will be saved and my customer's interest better served. Should there come up any problem from time to time, I will be glad to answer fully and cheerfully as best I can.

In 1917 I began in a small way to supply the local demand with asparagus crowns and seed. Since that time I have never been able to supply the demand. I have shipped asparagus crowns and seed to practically every asparagus growing section in the United States. In 1927 and 1928, I received orders each year for nearly a million crowns that I could not fill. This year I have more than doubled my acreage in asparagus crowns, and they are the finest lot of crowns that I have ever had at this season of the year. On July 1st, at time of going to press, I have bona fide orders with deposits made on same, for more than a million crowns.

I would advise all persons who expect to plant asparagus, to book their orders early and send in a deposit of 20%. This will assure them of getting crowns when they want them.

In presenting this annual booklet I want to thank my many old customers for the liberal patronage they have given me in the past, and to assure them, as well as all new customers, that each order will have my prompt and personal attention.

Visitors are always welcome except Sundays and holidays. Come and see what we are doing with this valuable crop. Remember "THE LATCH STRING HANGS ON THE OUTSIDE. DON'T KNOCK, COME IN."

T. R. FENDER.

ORIGIN OF ASPARAGUS.

Asparagus is one of the oldest of the cultivated vegetables. The Romans of Cato's time, about 200 B. C., knew it well. In Cato's time directions for growing it would answer fairly well for the gardener of today, except that he recommended starting with the seed of the wild plant. This seems good evidence that the wild and cultivated forms are of the same type. In England asparagus is reckoned as one of the oldest and most delicious of the early vegetables. It is found to this day growing wild at certain spots on the coast of Wales, Cornwall, Dorset, and the Channel Isles especially. It is also found at many places near London, where the soil is suitable, and has long been extensively cultivated. Several kinds of asparagus, different from that commonly

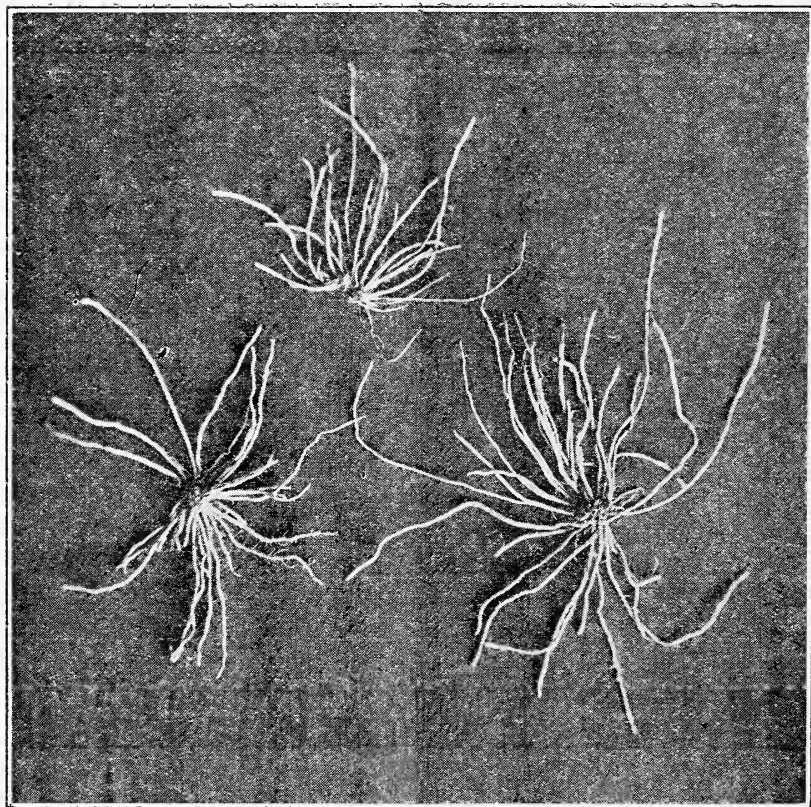


Fig. 2. Average Size One Year Old Asparagus Crowns.

cultivated, are found in many parts of the world. In France it has been grown extensively for many years. Asparagus belongs to the lily family, and, as most other members of that family, is beautiful. Several close relatives of the cultivated, edible asparagus are used extensively in the florist business.

Asparagus is one of the most delicious, the surest, and earliest products of the truck farmer or gardner. Its position among other vegetables is unique, and when once planted, lasts almost a life time. It may be prepared for use in a great variety of ways, and may be canned so as to be available at any time of the year, and yet in

the majority of gardens it is almost unknown. The probable reason for this neglect is based on the erroneous idea that asparagus growth requires unusual skill, expense and hard work. This was true in a measure under old-time rules, but modern methods have so simplified every detail connected with the cultivation of asparagus as to make it not necessarily any more expensive and laborious than any other garden or truck crop. All who have eaten asparagus agree that it is very easily digested, and is very healthful. Some who have kidney trouble claim to have been benefitted by eating asparagus.

GROWING ASPARAGUS CROWNS.

Asparagus seed should be planted in the early spring. Seed should be dropped about one inch apart and covered two inches deep. This will require about eight pounds of seed per acre in three-foot rows. Plant seed in rich sandy loam land that is free from grass seed. Frequent shallow cultivations should be kept up until the middle of September. Use a liberal amount of standard fertilizer at time of planting, with several applications of Nitrate of Soda or Sulphate of Ammonia, during the



Fig. 1. Field of Asparagus Crowns Several Weeks After Coming Up.

growing season. About one pound of seed is usually bought to produce enough crowns to set an acre. However, if good seed are secured, and properly planted and cultivated, more than this amount of crowns can be raised from a pound of seed. Growing asparagus crowns is a specialty, and should not be undertaken by one unless they have had some experience along this line. It is very difficult to keep the weeds and grass down. It is quite common to see a small patch of crowns completely ruined by grass and weeds. Generally speaking, asparagus crowns can be purchased nearly as cheap as they can be raised, unless the grower has had some experience along this line. Do not plant seed too thick, as it is impossible to produce good crowns, and do not plant small, inferior crowns. It is impossible to get a stand with small crowns, and aspara-

gus fields never seem to do as well with small crowns. Use a medium to large well developed one year old crown. Never use two year old crowns. About 30,000 crowns per acre is the amount generally grown.

SUITABLE LAND FOR ASPARAGUS.

Asparagus grows well in a variety of soils, much more so than any other crop. However, a rich, sandy loam is much better; a soil that is well drained and does not form a hard crust after each rain; a soil that is quick to grow off any other crop and that warms up quickly in the spring. Never plant asparagus in stiff clay land or in a stiff bottom. Some may tell you that poor sandy land is the best for asparagus. This is true in a sense if you have no rich sandy land. You have to make the poor land rich before you make any money on asparagus, and for this reason it is best to select a few acres of the best rich sandy, well drained land that you have, as asparagus will be your best money crop if you give it the proper care. Never plant asparagus on land that has stumps, as you don't want to be plowing around stumps for twenty years or longer and losing that much land. A land that has a little slope and on which the rows can be run east and west, is best, because rows running in this direction get the benefit of all the sun, whereas, if they were run in the other direction, part of the bed would be in the shade in the morning, part in the afternoon. A land with a south slope, and one that is protected from the cold spring winds, will make the asparagus or "grass," as it is often called, come up earlier. This is one reason why stable manure is so valuable in growing asparagus. It has a certain amount of warmth about it.

PROPER TIME TO SET ASPARAGUS FIELDS.

Asparagus crowns should be set any time during the dormant season, which is December, January and February in the Southern States. In Northern States, the crowns are set in December, February, March and April. The crowns should be set by the time or before they begin to sprout. Crowns should be set as soon as possible after being dug. However, good, strong crowns will give good results that have been dug for a month. As soon as crowns are received, they should be emptied from bags and placed in a cool dark place and planted as soon as convenient. Avoid crowns being packed in large piles or getting wet, as this may cause them to go thru a heat and kill the crowns. By all means avoid stepping on crowns. This will mash off and injure the eyes. Ordinary cold will not injure asparagus crowns.

DISTANCE APART TO PLANT ASPARAGUS.

Some growers use 4,000 per acre, and some about 2,200. I use and advise using 3,000 crowns per acre. With rows seven feet wide, and one crown dropped every 26 inches, 3,000 crowns will plant an acre. With 4,000 crowns planted per acre, more asparagus will be cut for the first several years, but by the time the asparagus gets eight years old or more, a larger number of small shoots will begin to come up. While, if only 2,200 crowns are planted per acre a smaller amount of asparagus will be cut for the first several years. A seven-foot row with crowns set from 20 to 30 inches, is the general practice for setting asparagus in South Carolina. A field of asparagus set with 4,000 crowns per acre will not produce good asparagus for more than 15 to 18 years, while if planted with 3,000 crowns per acre, it should produce fairly good asparagus for 20 years. Asparagus fields produce the best quality and quantity of asparagus from the fourth to the twelfth year. A field of asparagus after it is twelve years old will

naturally begin to produce a larger amount of small shoots, whether it be set close or not.

PLANTING ASPARAGUS.

The land should be well broken and all vegetation well harrowed in. Lay off the rows with a medium size shovel plow, then take a two-horse turn plow and make one round to each row, running in the edge of the shovel plow furrow, leaving a balk about 6 inches wide, then scatter about five tons of compost and 1,000 pounds of high-grade fertilizer in the furrow made by the two-horse plow and on the balk; next, throw out the balk with a large middle buster, or round point plow. This mixes the soil with the fertilizer and compost and the row is ready to be planted. A good plan to get the proper distance to set the crowns is to get a man who steps about 26 inches at each step to open up this last furrow and drop one crown in the heel of each track. Crowns should be planted in this furrow with the tops turned up, and covered about two inches with the foot. If crowns are planted top side down, they will turn and come up all right, but it is best to plant them the same as they were before being dug. The bottom of the furrow where the crowns are planted should be about nine inches below the level of the land.

Some growers prefer to lay off rows and bed out entire middle and then proceed with planting, as mentioned above. Either is all right.

If the compost is not available, good results can be had by using cotton seed. If neither compost nor cotton seed is available, it will be well to use a larger amount of fertilizer.

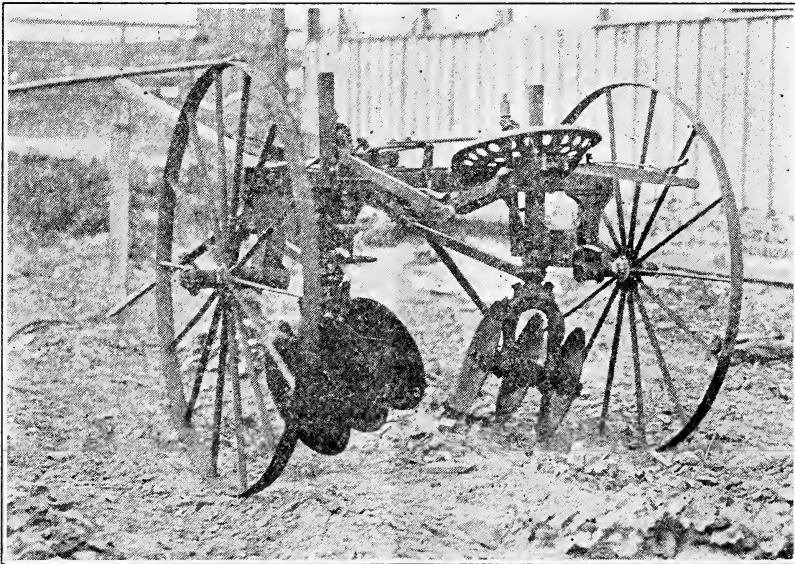


Fig. 3. A Popular Riding Cultivator Used For Hilling Asparagus Beds.
CULTIVATING ASPARAGUS.

As soon as the asparagus comes up to a good stand and is large enough to culti-

vate, it should be cultivated regularly until the land is level, gradually working a little soil around the plants at each plowing. Frequent and shallow cultivation should be kept up until July. A row of peas or some kind of soil builder might be planted in the middles. Never plant running velvet beans in asparagus, and by all means keep the fields free from weeds and grass, because the weeds and grass use up as much of the plant food as the asparagus plants do. There is a question as to whether this row of soil builder will do more harm than good. I advise planting a row of peas or beans, which will make lots of vegetation on the land, and disking this vegetation in the soil. By this method you will get more benefit from your commercial fertilizer.

The second year the old tops should be cut and harrowed in and the middles well broken, but not deep enough to break any of the large feed roots—generally about five inches deep. A bed should be made on the crowns about 12 inches high with a riding disc cultivator, and freshened about every three weeks during the cutting season. The middles should have several shallow cultivations during the cutting season. When the cutting season is over the beds should be plowed down level, followed by frequent shallow cultivations, and should be kept free from weeds and grass. The fields should be cultivated afterwards the same as the second year.

FERTILIZING ASPARAGUS.

This is one of the most important factors entering into the successful production of asparagus. It is also one question that we know very little about. Due to the fact that asparagus is not a one-year crop, it is very hard to get an accurate check on the proper formula of fertilizer to use, the proper amount and the proper time to apply same. For this reason I requested Clemson College to assist me in running a fertilizer test on my farm, which they are doing, with Mr. E. H. Rawl in charge of same. We have 42 test plots with different formulas and applied at different times. It will be several years before we expect to find out anything worthwhile, but as soon as we do, will be glad to give the asparagus growers the benefit of what we find.

Mr. Gowan, the County Agent of Aiken County, made a survey last year of 89 asparagus farms covering 1,032 acres. The reports show that there was an average of 49.46 crates produced per acre; that the gross income was \$138.10 per acre; that the cost was \$56.47 per acre; leaving a profit of \$81.54 per acre. Their average returns per acre was \$2.78, with an average cost of production, \$1.14, leaving a profit of \$1.64 per crate.

We found 34 growers using a 7-5-5 fertilizer, which is more than twice as many as we found using any other particular formula on the farms reporting. The group using the 7-5-5 produced 55 crates per acre this year, as compared with approximately 49 crates for the average, had gross receipts of \$178.22, with a cost of \$64.89, leaving them a profit of \$113.32 per acre, which is also the best profit per acre found in the study. There were 14 who used an 8-4-4 and had an average crate production of 45.6. Their gross receipts per acre was \$150.42, with a cost of \$53.32, leaving them a profit of \$97.10 per acre. This was a larger group using the 8-4-4, but the nine farmers who used 8-3-3 had a little better returns, but not enough difference to have much importance attached to it, as they produced 47 crates per acre, with the gross receipts of \$156.17, at a cost of \$51.52, leaving a profit of \$104.47. There were two using an 8-5-5, one using a 7-5-12, and two using a 7-5-2 and 32 used low grade formulas which did not conform to any

particular standard fertilizers.

We found a few farmers getting good results from an extra application of kainit.

There were 38 who applied a ton or more per acre, and 20 who applied from 1,500 to 2,000 pounds per acre. The remaining 31 used various amounts under 1,500 pounds.

There were a few who used an application of barnyard or stable manure applied broadcast, and these few report an average of 64 crates per acre.

The reports also show a strong sentiment for using the heavier application of fertilizer after the cutting season.

The above report shows that we have been fertilizing asparagus in a haphazard way, also that the grower who used a smaller amount of fertilizer made the smallest profit. Below is a reprint in part from Market Growers' Journal, Louisville, Ky., dated December 15, 1927. When F. W. Miller, of Trenton, S. C., shipped this colossal asparagus to market, the buyer wrote that it looked more like sugar cane than asparagus. To produce such high quality asparagus crop, Mr. Miller applied 8,000 pounds of 7-5-5 fertilizer per acre on asparagus for four years. The fifth year he applied 6,000 pounds of 7-5-5 (PNK), and top dressed with 1,000 pounds of potash manure salts. During the five years his lowest gross returns were \$370.00 per acre, and his highest was almost twice that amount.

I use and recommend using 1,200 pounds of 7-5-5, or preferably 7-5-7, applied broadcast and harrowed in in February. Three hundred pounds per acre of Nitrate of Soda just before cutting begins, which is about March 15th, and 1,200 of 7-5-5 or 7-5-7 May 10th, broadcast and harrowed in, and 600 pounds per acre of manure salts applied the last of June. Fertilizing as mentioned above will give good results.

Soil should be tested for acidity and apply sufficient amounts of ground limestone to keep the soil between slightly acid and neutral.

Tests have been made that show that asparagus requires chemicals in the same proportions found in an 8-4-10 fertilizer. It is not advisable, however, to apply an 8-4-10 mixed fertilizer, but timely applications of lower grade fertilizer with the addition of Nitrate of Soda and Muriate of Potash gave better results.

It must be remembered that different soils may require a different fertilizer to some extent, but the above recommendations are what I consider the best practices at the present time. As stated elsewhere in this catalog, that the average number of crates of asparagus produced is 58, it must be remembered that this includes fields just coming into bearing and old fields going out. Some growers produced from 150 to 170 crates per acre in 1927. This shows what can be done by proper fertilization and cultivation. When large quantities of asparagus are produced per acre the grade is much better and the returns per crate is much higher. For that reason it is advisable to use heavy applications of fertilizer. Weeds and grass use up as much plant food as the asparagus plants do. Either keep the weeds and grass down or use extra amounts of fertilizer.

HARVESTING ASPARAGUS.

Asparagus in this section begins to come up about March 15th, and the season lasts for about eight weeks. The asparagus is cut with a chisel-like knife about one and one-half inches wide and about eighteen inches long. There are many kinds of asparagus knives on the market, but I find that one made by a local blacksmith from an old buggy spring is the best. The wide part of the knife helps to prize the sprigs loose from the crown. After cutting, it is placed in baskets and hauled to the packing house in wheelbarrows or wagons. The choice or smallest grade is from 3-16 to 1-2 inch in

diameter at the largest place. The next largest grade or Fancy is from 1-2 to 7-16 of an inch in diameter at the largest place. The largest grade, or Colossal, is from 7-16 of an inch in diameter and larger. After being graded it is packed in bunches of about two pounds each and cut about 8-12 inches long. Each sprig should show 4-12 inches green. It is then placed in large pans with water about one inch deep for a short time. It is taken out of this water and packed in 12 bunch crates with a wet moss about 1-1.2 inches deep in the bottom of the crate. The bottom of the crate is lined with a water proof paper to hold the moisture. If this paper were not used the water would soon go to waste, and after a few days the asparagus would begin to wilt. By using this paper the asparagus arrives on the market in a fresh condition. The bunches are tied with tie grass or red tape. The tape is generally used and makes a more attractive bunch. To obtain the best price for asparagus, great care should be taken to see that it is properly graded and packed. In fact, this should be perfectly done, which is very



Fig. 4. Cutting "Dixie Brand" Asparagus.

hard to do. If we expect to get the highest prices for asparagus we must have the pack come up to what we mark the crate on the outside.

The cutting, grading and packing is generally done by women and children at a price of about 10c. per hour. At average labor and average quality of asparagus, the cost of putting up a crate is about 40c. per crate, not including the price of the crate, which is 15c. With good help and good asparagus, this cost will be less per crate, while with inferior help and small asparagus, the cost is greater. With average help and asparagus, one hand can take care of one acre per day. Generally speaking, it is not advisable to plant over three acres to each one-horse farm. Generally there is enough labor on a one-horse farm to take care of this amount and not interfere with the other farm work. Asparagus season is about over with before cotton is to chop. In sections where there is little asparagus planted, it is possible to get outside help. About 5 per cent. of the asparagus is cut white. Balance is cut to show about 4-12 inches green.

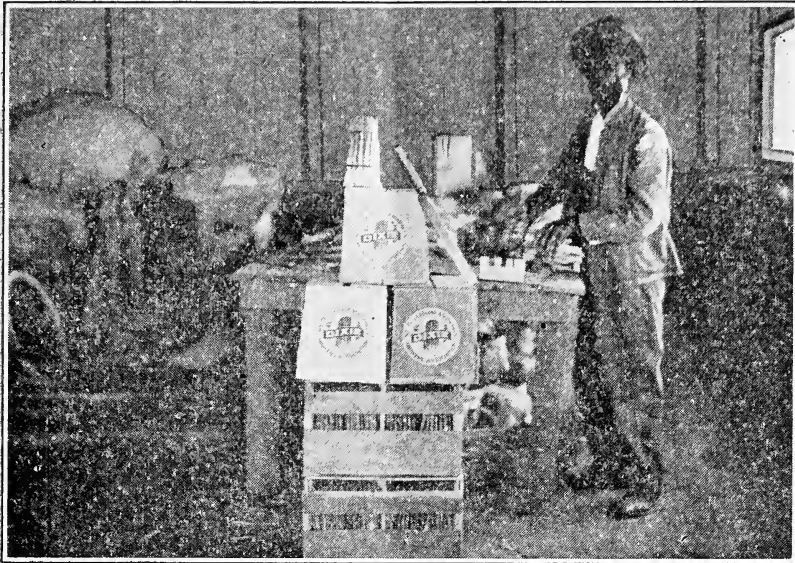


Fig. 5. Packing "Dixie Brand" Asparagus.

VARIETIES AND DISEASE.

About the only enemies that asparagus has are the asparagus beetle and rust. The beetle is a dark colored bug about one inch long, that eats holes in the sprigs. The beetle has done very little damage in the Southern States, but has given considerable trouble in the North. Asparagus rust is caused by a parasitic fungus (*Puccinia Asparagi*), which is a native of the Old World and was not found in America until 1896, when it was accidentally introduced into the vicinity of New York City. In ten years it has spread to all sections of the United States, and in many sections caused serious damage. Sulphur dust sprays were found to do some good in California, but little help was obtained in the east from spraying. It was learned that certain strains in Europe survived the rust attacks better than the old varieties. In 1906 asparagus rust threatened to destroy the asparagus industry in Massachusetts by killing the tops down. As soon as the next growth would come up these tops were killed also, until a good per cent. of the roots were killed. The Massachusetts Asparagus Grower's Association secured the co-operation of the Bureau of Plant Industry and the Massachusetts Agricultural Experiment Station in a breeding project to produce a rust resistant variety of asparagus. Varieties of seed from all over the world were collected and planted under severe rust conditions at Concord, Massachusetts. Not one variety planted was found to be completely immune to rust. This experiment was kept up until 1910, when one male plant A7-83, from an unknown origin, showed wonderful transmitting vigor and rust resistance to the progeny. A female plant, V32-29, when crossed with this male plant, gave the best progeny lot of the hundreds of combinations. This work was kept up for a number of years under the personal supervision of Mr. J. B. Norton, who is one of the leading plant breeders and asparagus experts of America today. About 1918 the Coker Pedigreed Seed Company of Hartsville, South Carolina, which is probably the largest and best seed breeders of the South, secured the services of Mr. Norton

and a quantity of the seed that he had been improving. Mr. Norton has continued breeding up these plants and has today the best variety of asparagus known in America. Mary Washington is the first generation off-spring of A5-11, Mary pollinated with A7-83 Washington. This progeny lot has the largest seed and the largest stalk of any combination yet tested. The size holds as the plant matures, so that any one can pick out rows of this strain in the test field without difficulty. The shoots are very large on the average, with a tendency to be oval in cross sections. It is scarcely less high in growth than the Martha Washington variety, and is very early and prolific. The high branching habit of this strain makes it possible to cut unbranched shoots with good, tight buds well above the ground. The branches of the mature shoots as they grow up, are much less spreading than those of ordinary asparagus, and while not as rust-resisting as Martha Washington, this strain suffers no appreciable loss under severe rust conditions. The object of this experiment was to produce a variety of asparagus which growers could afford to plant commercially under severe rust conditions. While this purpose has been accomplished, it has been improved otherwise—in earliness, largeness, straight shoots, with high branching and tight buds well above the ground.

Any one who might be in doubt as to the superiority of this strain of asparagus over the older varieties can be easily convinced if they will visit my farm and see the two varieties growing. The seed I offer for sale are from isolated fields, which seed came direct from Coker. My crowns are grown from the same seed. The gathering of the seed is under my personal supervision from start to finish, and every precaution is used in order to have the best germination. Germination test and last date is inclosed with each shipment. My seed are recleaned on a clipper mill and a large per cent. of the seed is taken out, leaving only the large, well developed seed. My seed are first class in every sense of the word and the price is very reasonable. Crowns will be grown from seed direct from the originator at the extra cost of the seed by making special arrangements before planting time.

OVER-PRODUCTION.

This is one of the most important questions that will confront the prospective grower of asparagus. California is our competitor. I will mention a few things in which we have the advantage over California. First, we have a cheaper freight rate, however, not as cheap per mile as California, but we hope to get a better rate in the near future. We can go to our markets in from three to five days, while it takes California eight to twelve days. California has to produce a strain of asparagus that is tough and woody-like for it to hold up under the long haul, and it is more difficult for her to produce green asparagus than for us. Our asparagus is tender and has a better flavor, and the trade will pay as much or more for it than for California asparagus. We have never put up as good package as California until the last few years, and several times during the 1927 and 1928 season South Carolina asparagus sold for more than California on the Northern markets. We have made wonderful improvements in packing and grading our asparagus in the last few years, and have been amply repaid for our labors. However, we have not reached perfection, and should strive to put up a still better package. The Northern markets are consuming increased tonnage of asparagus each year at profitable prices, and if we do not supply the demand, California will.

California is shipping to our Eastern markets about three times as much asparagus as the Southern States, so if the asparagus industry is overdone, California will do it. With the advantages that we have in flavor, cheaper freight rates, nearness to the markets, I believe that we will have a very profitable crop for a number of years to

come. Asparagus is not like many truck crops, which can be doubled in one year, but the increase must come gradually. Florida can not grow asparagus because her winters are so mild that it will not die down sufficiently to store up energy for the next crop, but keeps on sending up small shoots nearly the entire year. The States North of us come in after us and do not interfere with our crop.

In 1915 the asparagus growers of South Carolina shipped about 30 cars of asparagus, which netted them about \$1.05 per crate. At this price the crop was not very profitable. During the summer of that year the South Carolina Asparagus Growers' Association was formed, with the assistance of Dr. W. W. Long from Clemson College. In 1916 the average price per crate was \$1.87. This account was handled by the North American Fruit Exchange until 1922, when it was taken over and handled by the Association's manager. We have no records available during these six years, but there was a gradual increase in price and in tonnage. Below is a table showing the number of cars handled and prices received per crate of 12 bunches for the past seven years:

Year	Cars	Net Sales	Av. Per Crate	Acres in S. C.
1922	116	169,535.41	2.87	2,900
1923	118	202,031.14	3.28	3,150
1924	140	253,009.76	3.42	3,500
1925	205	250,742.44	2.25	4,500
1926	223	361,760.79	3.05	5,500
1927	331	544,124.36	3.18	6,400
1928	286	364,292.57	2.76	6,530
AVERAGE			2.97	

In the twelve States that grow asparagus, the acreage in 1921 was 16,310, in 1926 the acreage was increased to 63,580, and in 1928 there were 70,245 acres of asparagus growing in the United States.

The following early States producing asparagus had on March 1st, 1928, the following acres of asparagus: California, 37,400; Georgia, 5,640; South Carolina, 6,530. The late States producing asparagus are as follows: Delaware, 2,460; Illinois, 3,050; Iowa, 150; Maryland, 2,330; New Jersey, 10,500; Pennsylvania, 1,200, and Washington, 86 Texas, 60; North Carolina, 75. This makes a grand total of 70,245 acres.

About half of the entire asparagus acreage of the United States is planted in California, and they claim to can about 75% of their output and ship the remainder to the markets fresh. During 1924 there were shipped to the markets 1,755,000 crates of one dozen bunches. In 1926 this was increased to 3,212,000. South Carolina stands third in number of acres and third in production. At the same time we stand third from the lowest in the lowest number of crates per acre. In 1927 our average was 58 per acre, with Washington at the top with 89 crates per acre, and Georgia at the bottom with 17 crates per acre.

Below is a reprint from an editorial from the Williston Way, Williston, S. C., dated May 20, 1927:

South Carolina Backs California Off.

"We are indebted to Winn Ricker & Co., Boston, Mass., for an interesting bulletin issued by the Division of Markets of the Massachusetts Department of Agriculture

Dated May 8, 1927. This bulletin, which is official, gives some interesting figures on South Carolina Asparagus, particularly in that the prediction which has been made that within a few years that if South Carolina would grade and pack carefully, she could almost push California across the Mississippi River. In 1923 South Carolina lead with 15,000 crates in Boston with California only 14,000. In 1924 South Carolina held her own of 15,000, while California reached 24,000. In 1925 South Carolina had 33,000 and California 67,000. In 1926 South Carolina 28,000 against 46,000 for California. This year South Carolina had 53,500 against 13,500 for California. A study of this bulletin, which is published here in part, will be of interest to our readers."

The above-named bulletin continues:

South Carolina Has Favorable Season.

Prices in South Carolina for the season as a whole to date have ranged from \$3.00 on small, up to \$7.00-\$7.50 on large stock per crate of one dozen 2 1-4 pound bunches. A few special marks have brought prices above these ranges, and likewise offerings of poor quality, white stock have sold at lower prices.

Carolina prices have suffered less daily fluctuations than usual, which, together with satisfactory high levels throughout the season, will probably result in a better season average than last year.

Today's prices on Carolina are: Colossal, \$8.00; Fancy, \$6.75-\$7.00; Choice, \$5.00, with some white Fancy and Colossal low as \$4.00.

Most Carolina receipts have been of good quality and color. Considerable comment is heard among the trade concerning this year's improvements in grading and attractiveness of pack of this grass.

While some of the increase in receipts from this source are due to the early start of the season, Carolina is still shipping actively and, as usual, can be expected to continue well into the present month until the volume of local supplies becomes heavy.

California Season Finished.

California prices have been subject to greater fluctuations and have been somewhat lower than those on Carolina stock. Taking this season as a whole, they have ranged from \$2.50 on small, up to \$6.00 on large, with a few higher per crate of one dozen 2 1-4 pound bunches.

Considerable white and dirty stock of all grades has sold as low as \$2.00. The California season is practically over.

Georgia Quality Good.

Georgia, rapidly increasing in importance as an asparagus producer, also shipped a light volume to Boston. The feature of this grass, as in the past few seasons, has been the unusual length of green. Prices in general have been somewhat the same as for Carolina, with some fancy green marks somewhat higher.

Heavy rains and unfavorable weather conditions were largely responsible for the short crop of California asparagus in 1927.

In conclusion, will say that growing and marketing asparagus successfully and profitably is a man's job and, like any other worthwhile enterprise, requires some good, honest work. However, it is not near so hazardous as most all other truck crops. There is no disease to fight, and over-production cannot come over night.

When we reach the point where we cannot market our asparagus, profitably green,

we can make a success canning asparagus. To the present time we have not needed a cannery. In every town and city is found California canned asparagus. Why cannot we can and sell asparagus as cheap in California as California can can and sell asparagus in South Carolina.

CANNING.

Canning asparagus is very easily done, and is not so expensive as canning some other vegetables. After the grass is taken from the field and graded, the tips are cut four to six inches long, depending on the length of the can. It is then washed and placed in wire baskets with the tips up, and placed in a can of boiling water and boiled for 10 minutes, then removed to a can of cold water so it can be handled. It is then placed in open top cans with the tips up and filled with salty water, sealed, and cooked for 20 minutes at 240 degrees F. H. The only expensive machinery about canning asparagus is the sealing machine and the boiler where it is cooked. Canned asparagus has about as good flavor as when fresh.

TERMS AND CONDITIONS OF SALE.

Location—Farm is two miles west of Williston, S. C., and on north side of and joins the Southern Railroad. Visitors are always welcome except Sundays and holidays. Come and see what we are doing and how we are handling this valuable truck crop.

Remittance may be made by personal check, Express or Postoffice money order. Small amounts may be sent in stamps.

It is much better to book orders for crowns in advance. Orders will be booked in advance provided 20% deposit is made with order. This is only a business proposition that holds both parties. If you make a deposit on crowns you can rest assured of getting good crowns when you want them.

Cash in full must accompany order. Or, if 20% deposit has been made, balance will be sent C. O. D.

Crowns are packed in burlap bags about the size of oat bags or larger. There is no charge for packing or counting, but 15c. is charged for each bag, or the bags may be returned. With the unusually low price charged for crowns, it is necessary to charge for bags or have them returned. Most farmers prefer to return bags.

Seed are shipped in durable shipping bags. No charge for seed bags.

Advise how to ship crowns. Crowns in small lots are shipped by parcel post.

Crowns will be shipped by express, collect, unless instructed to ship otherwise. Crowns may be shipped by freight in large quantities, which is cheaper than express. If not too far away, it is best to haul crowns in truck from farm and is generally cheaper.

All seed are tested for germination, and the per cent. of germination and date is inclosed with each shipment. However, under no circumstances will I be responsible for the germination of the seed after they are planted, as there are many reasons for imperfect germination of planted seed other than their vitality, and in no case do I give any warranty, express or implied, as to the description, quality, or productivity of my seed. If customer does not accept seed under these conditions they are to be returned at once. Examine seed when you receive them in any way you see fit, and if for any reason they are not satisfactory, they may be returned within ten days, in original package, at my expense, and I will refund the entire purchase price.

Crowns are carefully counted and the name of the person counting crowns is written on back of shipping tag, which is attached to each bag. In case of error in count, shipping tag must be returned within ten days after crowns are received. Every pre-

caution is taken to have crowns counted correctly, however, we are human, and are liable to make mistakes. In case we make an error, we are always willing to correct same.

PRICE LIST OF MARY WASHINGTON ASPARAGUS CROWNS AND SEED.

Price List.

Large selected one year old asparagus crowns, delivered by parcel post, in small quantities, one cent each. No. 1 selected one year old asparagus crowns, \$4.50 per 1,000, F. O. B. Williston, S. C. This is the grade of crown that I have sold for a number of years and will give entire satisfaction. These crowns will weigh about 70 pounds per thousand when dug.

Re-selected extra large one year old crowns, \$6.00 per 1,000. These crowns will weigh nearly 100 pounds per 1,000, and is recommended for the Northern trade or where the crowns have to be kept out for several weeks.

The above prices are rock bottom and applies to all. Large or small orders the same price.

Mary Washington seed 75c. per pound, delivered by parcel post. Write for prices on commercial quantities.

Can furnish Washington, Palmetto and Giant Argenteuil seed in commercial quantities. Write for prices. I only recommend the Mary Washington, as it is far superior to any of the other varieties.

APPROXIMATE COST OF SETTING AN ACRE OF ASPARAGUS, INCLUDING HORSE POWER AND CONSERVATIVE ESTIMATE OF INCOME FROM SAME.

	Expense	Income
Preparing land for planting.....	\$ 7.00	
Applying compost.....	5.00	
Applying fertilizer, (two applications)	2.00	
Planting crowns.....	1.00	
Plowing four times.....	4.00	
Hoeing one time.....	1.00	
Cost of fertilizer.....	30.00	
Cost of compost, (five tons).....	20.00	
Land rent.....	5.00	
3,000 crowns and transportation on same.....	15.00	
	<hr/>	
	\$90.00	
Interest on investment at 8 per cent.....	7.20	
	<hr/>	
TOTAL FOR FIRST YEAR.....	\$97.20	

Second Year

Preparing land for fertilizing.....	5.00
Applying fertilizer, (two applications).....	2.00
Cultivating four times.....	4.00
Hoeing one time.....	1.00
Fertilizer.....	30.00
Compost	20.00
Applying compost.....	5.00
	<hr/>
	\$67.00

Interest on investment at 8 per cent 5.36

TOTAL EXPENSE FOR SECOND YEAR\$72.36

Third Year

Expense will be the same as for second year.....\$ 67.00

Labor for harvesting 33 crates at 40c 13.20

Cost of 33 crates at 15 cents 4.95

85.15

Interest on investment 6.80

TOTAL EXPENSE FOR THIRD YEAR\$91.95

Income for third year, (33 crates @ \$3.00)..... \$ 99.00

Fourth Year

Expense will be same as for second year except

\$15.00 for additional fertilizer\$ 82.00

Labor for harvesting 50 crates..... 20.00

Cost of 50 crates at 15 cents 7.50

... \$109.50

Interest on investment..... 8.76

TOTAL EXPENSE FOR FOURTH YEAR\$118.26

Income for fourth year, (50 crates at \$3.00).... \$150.00

Fifth Year

Expense will be same as for fourth year.....\$82.00

Labor for harvesting 70 crates at 40 cents..... 28.00

70 crates at 15 cents..... 10.50

\$120.50

Interest on investment..... 9.64

TOTAL EXPENSE FOR FIFTH YEAR\$130.14

Income for fifth year, (70 crates at \$3.00)..... \$210.00

Sixth Year

Expense will be same as for fifth year..... \$ 82.00

Labor for harvesting 100 crates..... 40.00

100 crates at 15 cents..... 15.00

\$137.00

Interest on investment..... 10.96

TOTAL EXPENSE FOR SIXTH YEAR\$147.96

Total income for sixth year, (100 crates at \$3.00)..... \$300.00

The above estimates are very conservative and can be gotten by any one who will try. There are a number of items entering into the expense column that the average farmer will not count. In this case it will show a greater profit. The above figures are well above the average returns for state as a whole as stated elsewhere in this booklet but it must be remembered that in the general average, is included fields just coming into bearing, fields going out, and a number of fields fertilized and cultivated very poorly. In the event that compost is not available, the same results can be obtained by using extra amounts of fertilizer and summer and winter cover crops.

The number of crates harvested will gradually increase until the beds are ten to twelve years old. After twelve years old the quantity and quality will begin to decrease. The above results can only be obtained by proper cultivation, and BY ALL MEANS keep fields free from weeds and grass. The weeds and grass take up as much plant food as the asparagus. It is necessary to keep fields clean or use extra amounts of fertilizer.

Greene Lumber and Crate Company

WILLISTON, S. C.

We make all kinds of

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Heads printed in two colors to order on large orders.

No Order Too Large or Too Small

DAILY CAPACITY, 5,000.

Asparagus Crates a Specialty

Bunchers!

Bunchers!

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Enterprise Hardware Company

WILLISTON, S. C.

Riding Cultivator

Asparagus Bunchers, Tape, Raffia, Knives, Etc.

The writer wishes to thank the Department of Agriculture, Clemson College, Mr. Gowan, Members of the South Carolina Asparagus Growers Association and others who assisted in getting up this booklet.

Below are a few unsolicited testimonials:

Neeses, S. C., April 25, 1928.

Mr. T. R. Pender,

Williston, S. C.

Dear Sir:—

I received the asparagus crowns for ten acres and planted them on Feb. 9th, 1927 and got almost a perfect stand. On March 9th, 1928 I began cutting and cut until April 16th. On ten acres of land I cut during this time 126 crates which graded as follows: 45 percent Collosal, 43 percent Fancy and 12 percent Choice. The net sales from the 126 crates was \$382.88.

I am so well pleased with these crowns that I want you to book my order for 35,000 more crowns for next February, and am inclosing check for \$35.00 as deposit on same.

Yours very truly,

(Signed) W. B. BOLIN.

Reynolds, Ga., January 27, 1928.

Mr. T. R. Pender,

Williston, S. C.

My Dear Sir:—

You will find inclosed M. O. for \$5.00 for which please send me by express 1000 more of your Mary Washington crowns. I need about this amount to finish planting my field.

I want to thank you for sending me such large healthy crowns in my last order. They were what I wanted and asked you to ship. I like to deal with people that deliver good stuff when they sell it.

Yours very truly,

(Signed) J. G. HICKS.

I do not recommend cutting asparagus beds when only one year old as noted above in Mr. Bolin's letter. This is a very dangerous practice, as it is apt to injure the stand. However this shows what can be done, by using heavy applications of manure and fertilizer and proper cultivation. Mr. Bolin planted his asparagus in rich sandy loam land and used heavy applications of fertilizer and compost and cultivated it properly.

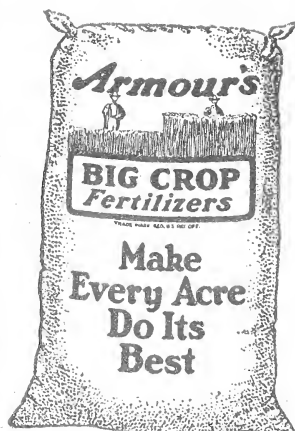
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